TRANSISTORIZED VOLT-OHM-MILLIAMMETER **MODELS TVM 4**





TRANSISTORIZED VERSION OF COMBINED VACUUM TUBE VOLTMETER (VTVM) AND VOM WITHSTANDS 500 TIMES OVERLOAD ON VOLTMETER

FEATURES

- High Input Impedance 2 Megohms Per Volt low ranges, 36 Megohms high ranges
- Sensitive Voltage Scales-150 MV D-C Full Scale
- Meter Movement Burn-out Proof Solid State Protection
- 30 Ranges for Measurement of Voltage, Current and Resistance
- Linear, Stable, Accurate, Repeatable
- Solid State Circuitry
- Long Battery Life- Less than 1 Milliampere Amplifier Battery Drain

APPLICATIONS

- General Purpose Laboratory VOM
- Measurements in High Impedance Circuits
- Low Voltage Measurements on Solid State Circuits
- Floating Meter Isolated from A-C Ground
- Field Service
- Differential Measurements at High Potential
- Tautband meter

AUL INSTRUMENTS, INC 24-13 BRIDGE PLAZA NORTH L.I.C., N.Y. 11101 212 729 6565

MODEL TVM 4 **SPECIFICATIONS**

MODEL TVM 4 SPECIFICATIONS		REQ. QUE FOR L.I.C. N.
Voltage Ranges		A.C.
D-c	0-0.15V, 0.5V, 1.5V, 5V, 15V, 50V, 150V, 500V, 1500V	, v
A-c	0-1.5V, 5V, 15V, 50V, 150V, 500V, 1500V	
Resistance Ranges	R x 1 (10 ohm center), R x 10 (100 ohm center), R x 100 (1K center), R x 1K (10 K center), R x 10K (100 K center), R x 100K (1 meg center)	
D-c Current	0-0.15 ma, 0.5 ma, 1.5 ma, 5 ma, 15 ma, 50 ma, 0.15 amp, 0.5 amp, 1.5 amp	
Accuracy		
D-C Volts	\pm 3% of full scale	
A-c Volts	± 5% of full scale	
Current	± 3% of full scale	
D-c Resistance	± 3° linear arc	
Input Impedance		
D-c Volts	0.15 volt range, greater than 500K 0.5 volt range, greater than 1.5 meg 1.5 volt range, greater than 5 meg 5.0 volt range, greater than 17 meg Other ranges, greater than 36 meg	
A-c Volts	Approx 250 K res. shunted by 200 pf	
Meter Movement	50 μa full scale, tautband movement	
Scale Length		
Dimensions	3.8 inches 6-7/8 L 5-1/4 W	
Net Weight (With Batteries)	2-1/4 D 2-3/4 lbs.	

DESCRIPTION

THE AUL INSTRUMENTS TRANSISTORIZED VOLT-OHM-MILLIAMMETER combines and exceeds the most desirable features of conventional multimeters and vacuum tube voltmeters. A unique solid state design achieves high input impedance, stability and sensitivity with a battery life approaching the battery's normal shelf life. The meter is virtually burn-out proof, offering protection against damage to the transistors and to the meter movement. The meter sensitivity provides an order of magnitude improvement over that of meters in common use, and an even higher degree of improvement in stability. One percent resistors and a tautband meter movement together with a solid state amplifier, the linearity of which is independent of supply voltage, insure accurate performance. Minimum power dissipation, long life components and protective circuitry insure that the instrument will hold its calibration under the most adverse operating conditions in the hands of inexperienced operating personnel.

TRANSISTORIZED MILLIVOLT-OHM-MICROAMMETER MODEL TVOM4

TESCO ASSOCIATES
2002 TEALL AVE., SYRACUSE, N.Y. 13206
TED A. HENDEL, Field Engineer
TED A. 15 | 463.4566

FEATURES

High Input Impedance

3 Megohms/Volt Low Ranges 36 Megohms on High Ranges

Multifunctioned

A-C, D-C, Voltage, Current, Resistance and Temperature

Long Battery Life

Approaches Battery Shelf Life

Sensitive

150 Millivolts D-C and 1.5 Microamperes Full Scale

Fool Proof

Protection for Amplifier and Meter Movement

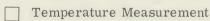
Value

Los Cost, Stable, Accurate



APPLICATIONS

General Purpose Laboratory VOM or VTVM
Measurements in High Impedance Circuits
Low Voltage Measurements on Solid State Circuits
Floating Meter Isolated From A-C Ground
Field Service or Production Line
Differential Measurements at High Potential





SPECIFICATIONS

Ranges

Voltage Ranges

D-C 0.15V, 0.5V, 1.5V, 5V, 50V, 500V, 1500V

A-C 0 - 1.5V, 5V, 50V, 150V, 500V

Resistance Ranges R x 1 (10 ohm center), R x 10 (100 ohm center),

R x 1K (10K center), R x 100K (1 meg center)

D-C Current 0 - 1.5ua, 0.15ma, 15ma, 0.15amp, 1.5amp

Temperature -40° to $+100^{\circ}$ C

Accuracy

 $\begin{array}{lll} \text{D-C Volts} & \pm 3\% \text{ fo full scale} \\ \text{A-C Volts} & \pm 5\% \text{ of full scale} \\ \text{Current} & \pm 3\% \text{ of full scale} \\ \text{D-C Resistance} & \pm 3^{\circ} \text{ linear arc} \end{array}$

AC Response

Frequency Greater than 100KHz

Calibration Responds to peak value of the input, calibrated in

RMS volts for a sine wave input

Input Impedance

D-C Volts 0.15 volt range, greater than 500K

0.5 volt range, greater than 1.5 meg 1.5 volt range, greater than 5 meg 5.0 range, greater than 17 meg Other ranges, greater than 36 meg

A-C Volts Greater than 1 megohm at 1Hz

Miscellaneous

Movement 50ua full scale, taut band movement

Floating Input May be operated 1500 volts above ground

Power 9 volt trans radio type (Mallory TR146x), 1.5 volt

"C" cell (Eveready 935)

Dimensions 6-7/8 inches long

5-1/4 inches wide 2-1/4 inches deep

Net Weight 2-3/4 pounds with batteries

Price \$55.00 FOB L.I.C., N.Y.

DESCRIPTION

THE AUL INSTRUMENTS TRANSISTORIZED MILLIVOLT-OHM-MICROAMMETER combines and exceeds the most desirable features of conventional multimeters and vacuum tube voltmeters. A unique solid state design achieves high input impedance, stability and sensitivity with a battery life approaching the battery's normal shelf life. The meter is virtually burn-out proof, offering protection against damage to the transistors and to the meter movement. The meter sensitivity provides an order of magnitude improvement over that of meters in common use, and an even higher degree of improvement in stability. One percent resistors and a tautband meter movement together with a solid state amplifier, the linearity of which is independent of supply voltage, insure accurate performance. Minimum power dissipation, long life components and protective circuitry insure that the instrument will hold its calibration under the most adverse operating conditions in the hands of inexperienced operating personnel.